

REMARKS

Claims 1-5, 8-12 and 14-23 are pending in the present application. Applicants respectfully request reconsideration of the present claims in view of the following remarks.

I. Prior Art Rejections:

Rejection of Previously Presented Claims 1-5, 8-12 and 14-23 Under 35 U.S.C. §103(a) In View of U.S. Patent No. 6,890,889 (Wichert) Further In View of U.S. Patent No. 6,924,250 (Cernes), U.S. Patent No. 5,620,678 (Burke), U.S. Patent No. 5,704,961 (Hudson) and U.S. Patent Application Publication No. 2001/0051591 (Ferrett)

Previously presented claims 1-5, 8-12 and 14-23 were rejected under 35 U.S.C. §103(a) as being unpatentable in view of (1) U.S. Patent No. 6,890,889 issued to Wichert et al. (hereinafter, “Wichert”), further in view of (2) U.S. Patent No. 6,924,250 issued to Cernes (hereinafter, “Cernes”), (3) U.S. Patent No. 5,620,678 issued to Burke (hereinafter, “Burke”), (4) U.S. Patent No. 5,704,961 issued to Hudson (hereinafter, “Hudson”), and (5) U.S. Patent Application Publication No. 2001/0051591 to Ferrett et al. (hereinafter, “Ferrett”). This rejection is respectfully traversed.

The March 15, 2011 Office Action suggests that one skilled in the art, given the teaching of Wichert, would have been motivated to (1) seek out (i) the teaching of Cernes directed to mesotrione-containing compositions, (ii) the teaching of Burke directed to water- and solvent-based aerosol insecticide compositions, (iii) the teaching of Hudson directed to corrosion inhibitors for liquid nitrogen-containing fertilizers, and (iv) the teaching of Ferrett directed to glyphosate-containing compositions containing an ionic salt safener for the glyphosate herbicide; (2) utilize the oleamide DEA to pyrethrum weight ratio of about 0.30:1.25 disclosed in Example IV of Burke for the weight ratio of ammonium nitrate to mesotrione in the teaching of Wichert instead of Wichert’s specific teaching of using a greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione; (3) utilize the disclosed pH range of Hudson’s liquid fertilizer compositions in Wichert’s mesotrione formulations; and (4) utilize the ionic salt softeners, specifically formulated to reduce phytotoxic injury resulting from the use of glyphosate herbicides in Ferrett’s glyphosate-containing compositions, in Wichert’s mesotrione formulations, resulting in Applicants’ claimed invention. Applicants disagree.

As discussed in Applicants’ February 03, 2009 Reply and Applicants’ September

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29, 2009 Amendment and Response, the teaching of Wichert is directed to mesotrione formulations comprising (i) mesotrione and (ii) urea ammonium nitrate or ammonium sulfate fertilizer. When urea ammonium nitrate is present in the disclosed formulations, the teaching of Wichert specifically instructs one skilled in the art to formulate mesotrione compositions so as to have a weight ratio of ammonium nitrate salt to mesotrione much higher than Applicants' recited weight ratio of ionic nitrate salt additive (i.e., component c) to at least one pesticide (i.e., component b). As discussed in Applicants' September 29, 2009 Amendment and Response, even when the teaching of Wichert is viewed most favorably to Examiner Brown's position, the teaching of Wichert still instructs one skilled in the art to utilize a minimum ratio of ammonium nitrate salt to mesotrione of at least 0.53:1, substantially greater than the "less than or equal to 0.3:1" ratio as recited in Applicants' claimed invention.

As further discussed in Applicants' February 03, 2009 Reply and Applicants' September 29, 2009 Amendment and Response, in addition to teaching away from Applicants' claimed invention as discussed above, the teaching of Wichert, alone or in combination with the art of record and a general understanding of the state of the art, fails to suggest to one skilled in the art the benefits of utilizing an ionic nitrate salt additive, namely, ammonium nitrate, in a pesticide concentrate at a ratio of less than or equal to 0.3:1 (i.e., ionic nitrate salt additive to pesticide) as recited in Applicants' claimed invention.

As discussed above, the March 15, 2011 Office Action suggests that one skilled in the art would have been motivated to utilize the oleamide DEA to pyrethrum weight ratio of about 0.30:1.25 disclosed in Example IV of Burke for the weight ratio of ammonium nitrate to mesotrione in the teaching of Wichert instead of Wichert's specific teaching of using a greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione. It is difficult for Applicants to understand why one skilled in the art, given the specific teaching within Wichert, would have ignored the specific teaching of Wichert with regard to using a greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione, and instead utilized Burke's disclosed weight ratio for oleamide DEA to pyrethrum weight ratio (i.e., 0.30:1.25 oleamide DEA to pyrethrum). Applicants respectfully submit that the only motivation for (1) ignoring the specific teaching of Wichert and (2) using Burke's disclosed weight ratio for oleamide DEA to pyrethrum weight

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ratio in place of Wichert's greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione, as suggested in the March 15, 2011 Office Action, has been gleaned from Applicants' original specification, not from the art of record.

Further, it is difficult for Applicants to understand why one skilled in the art, given the teaching of Wichert with regard to pH in column 2, lines 42-60, would have (1) sought out the teaching of Hudson directed to liquid fertilizer compositions, and (2) utilized a pH range of below 6 in Wichert's mesotrione formulations because Hudson uses a similar pH range for the disclosed liquid fertilizer compositions.

In addition, it is difficult for Applicants to understand why one skilled in the art, given the teaching of Wichert directed to mesotrione formulations, would have (1) sought out the teaching of Ferrett directed to methods of safening crops from the phytotoxic effects of glyphosate by utilizing specific ionic salts in combination with the glyphosate (see, Ferrett, paragraphs [0017]-[0018]); and (2) incorporated one of Ferrett's disclosed ionic salt safeners (for glyphosate) into Wichert's mesotrione formulations. On page 9, lines 12-15, the March 15, 2011 Office Action states:

One of ordinary skill would be motivated to make this combination with the expected benefit of safening a plant from phytotoxic injury caused by mesitrione and/or mesitrione chelate compounds.

Applicants disagree that one skilled in the art, given the teaching of Wichert directed to mesotrione formulations, would have (1) sought out the teaching of Ferrett directed to glyphosate compositions, and (2) incorporated one of Ferrett's disclosed ionic salt safeners (for glyphosate) into Wichert's mesotrione formulations with the "expected benefit of safening a plant from phytotoxic injury caused by mesitrione and/or mesitrione chelate compounds" as suggested in the March 15, 2011 Office Action. Again, Applicants respectfully submit that the only motivation for incorporating one of Ferrett's disclosed ionic salt safeners (for glyphosate) into Wichert's mesotrione formulations, as suggested in the March 15, 2011 Office Action, has been gleaned from Applicants' original specification, not from the art of record.

However, even if the proposed combination of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett were deemed proper (and for at least the reasons given above, Applicants submit that it is improper) as suggested in the March 15, 2011 Office

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Action, the proposed combination of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett would still fail to teach or suggest an ammonium nitrate salt additive in a pesticide concentrate at a ratio of less than or equal to 0.3:1 (i.e., ammonium nitrate salt additive to pesticide) as recited in Applicants' claimed invention. Any combination of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett would not alter the disclosed ratio of components (i.e., pesticide, UAN solution, and AN content relative to diluent) suggested in the teaching of Wichert. For at least this reason, the proposed combination of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett, even if proper, fails to make obvious Applicants' claimed invention.

Further, Applicants respectfully submit that if one skilled in the art, given the teaching of Wichert and a general understanding of the art, would have been motivated to (1) seek out the teachings of Cornes, Burke, Hudson and Ferrett, and (2) subsequently formulate a pesticide concentrate, Applicants respectfully submit that one skilled in the art would have been guided to utilize Hudson's disclosed corrosion inhibitors (i.e., monocarboxylic acids, polycarboxylic acids, or mixtures thereof) in Wichert's mesotrione formulations, not ammonium nitrate at a weight ratio of less than or equal to 0.3:1 relative to the mesotrione.

Applicants respectfully submit that the proposed combination of the teachings of Wichert, Cornes, Burke, Hudson and Ferrett actually teaches away from the use of ammonium nitrate as a corrosion inhibitor in a pesticidal composition given that the teaching of Hudson (1) discloses specific corrosion inhibitors in the form of monocarboxylic acids, polycarboxylic acids, or mixtures thereof, and (2) clearly discloses that ammonium nitrate causes corrosion, and due to the corrosive nature of ammonium nitrate, corrosion inhibitors in the form of monocarboxylic acids, polycarboxylic acids, or mixtures thereof should be utilized instead of ammonium nitrate.

Applicants note that in *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007) (hereinafter, "the KSR case") and cases after the KSR case, the Court requires some motivation or reason for one skilled in the art to (i) combine elements of the prior art or (ii) modify a known compound in the way that a new invention does in order to render the new invention obvious. See, for example, the Court decision in *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, No. 2006-1329 (Fed. Cir. 2007) (hereinafter, "the Takeda case"), wherein

the Federal Circuit stated:

While the KSR Court rejected a rigid application of the teaching, suggestion, or motivation (“TSM”) test in an obviousness inquiry, the Court acknowledged the importance of identifying “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obviousness determination. KSR, 127 S. Ct. at 1731. Moreover, the Court indicated that there is “no necessary inconsistency between the idea underlying the TSM test and the Graham analysis.” Id. As long as the test is not applied as a “rigid and mandatory” formula, that test can provide “helpful insight” to an obviousness inquiry. Id. Thus, in cases involving new chemical compounds, it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish *prima facie* obviousness of a new claimed compound.

Although the holding in the *Takeda* case involved motivation for modifying a known compound, Applicants respectfully submit that a similar analysis applies to the required motivation for selecting and combining possible pesticidal composition components from hundreds (or thousands) of potential pesticidal composition components. As discussed above and consistent with the holdings in the *KSR* case and the *Takeda* case, the art, at a minimum, fails to provide any reason that would have lead one skilled in the art, given the teaching of Wichert, to (1) seek out (i) the teaching of Burke directed to water- and solvent-based aerosol insecticide compositions, (ii) the teaching of Hudson directed to corrosion inhibitors for liquid nitrogen-containing fertilizers, and (iii) the teaching of Ferrett directed to glyphosate-containing compositions containing an ionic salt safener for the glyphosate herbicide; (2) utilize the oleamide DEA to pyrethrum weight ratio of about 0.30:1.25 disclosed in Example IV of Burke for the weight ratio of ammonium nitrate to mesotrione in the teaching of Wichert instead of Wichert’s specific teaching of using a greater than 0.53:1 weight ratio of ammonium nitrate to mesotrione; and (3) utilize the ionic salt softeners, specifically formulated to reduce phytotoxic injury resulting from the use of glyphosate herbicides in Ferrett’s glyphosate-containing compositions, in Wichert’s mesotrione formulations, in an attempt to recreate Applicants’ claimed invention.

For at least the reasons given above, it is respectfully submitted that the proposed combination of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett, alone or in combination with the general state of the art, fails to make obvious Applicants’

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claimed invention as embodied in independent claims 1, 15 and 20. Since claims 2-5, 8-12, 14, 16-19 and 21-23 depend from independent claims 1, 15 and 20 and recite further claim features, the proposed combination of the teaching of the teaching of Wichert with the teachings of Cornes, Burke, Hudson and Ferrett, alone or in combination with the general state of the art, also fails to make obvious Applicants' claimed invention as embodied in dependent claims 2-5, 8-12, 14, 16-19 and 21-23. Accordingly, withdrawal of this rejection is respectfully requested.

II. Conclusion:

For at least the reasons given above, Applicants submit that claims 1-5, 8-12 and 14-23 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

Should Examiner Brown believe that further action is necessary to place the application in better condition for allowance, Examiner Brown is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 503025.

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W&K Matter No.: 10075.0016USWO
Syngenta Docket No.: 70347